



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

Washington State Energy Code Development Standard Energy Code Proposal Form

Log No. 197 TAG revision 6/4/21

Code being amended: ☒ Commercial Provisions ☐ Residential Provisions

Code Section # C405.4.2.2

Brief Description:

Table C405.4.2(2) clean up (with added section text clean up)

Proposed code change text: (Copy the existing text from the Integrated Draft, linked above, and then use underline for new text and ~~strikeout~~ for text to be deleted.)

For SI: 1 foot = 304.8 mm, ~~1 ft² watt per square foot = 11 W/m²~~ 0.0929 m² 1 watt per square foot = 10.76 watts per square meter. (same change needs to be made for TABLE C405.5.3(2) and TABLE C405.5.3(3))

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- Guest room^{a,b}
- Fire stations^g
- Library^f
- a. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
- b. A facility for the visually impaired is a facility that is licensed or will be licensed by local or state authorities for senior long-term care, adult daycare, senior support or people with special visual needs.
- c. For spaces in which lighting is specified to be installed in addition to, and controlled separately from, the general lighting for the purposed of highlighting art or exhibits, provided that the additional lighting power shall not exceed 0.5 W/ft² of such spaces.
- ~~d. RESERVED.~~
- ~~e. RESERVED.~~
- ~~f. RESERVED.~~
- ~~g. RESERVED.~~
- ~~h. RESERVED~~
- d. i. Class I facilities consist of professional facilities; and semi-professional, collegiate or club facilities with seating for 5,000 or more spectators.
- e. j. Class II facilities consist of collegiate and semi-professional facilities with seating for fewer than 5,000 spectators; club facilities with seating between 2,000 and 5,000 spectators; and amateur league and high school facilities with seating for more than 2,000 spectators.
- f. k. Class III facilities consist of club, amateur league and high school facilities with seating for 2,000 or fewer spectators.
- g. l. Class IV facilities consist of elementary school and recreational facilities; and amateur league and high school facilities without provisions for spectators.
- h. m. For classrooms, additional lighting power allowance of 4.50 W/lineal foot of white or chalk boards for directional lighting dedicated to white or chalk boards.
- i. n. Additional lighting power allowance of 0.30 W/square foot for ornamental lighting. Qualifying ornamental lighting includes luminaires such as chandeliers, sconces, lanterns, ~~neon and cold cathode, light emitting diodes,~~ theatrical projectors, moving lights and light color panels when any of those lights are used in a decorative manner that does not serve as display lighting or general lighting.

Purpose of code change:

- Table C405.4.2 SI conversion. Suggest modifying the line 1 watt per square foot and to just 1 square foot = XX m2. Also, the conversions are not consistent, in table C40.5.3, it is 1 square foot = 0.0929 m2. It is better to just use the same conversions.
- Table C405.4.2 – remove “b” near guest room. “b” relates visually impaired facilities. It is not needed for guest rooms.
- Table C405.4.2 – remove “f” superscript by library as it is reserved, remove “g” near fire stations as “g” is reserved
- Table C405.4.2 – consider revising the footnotes as 5 of them are now “reserved”
- Table C405.4.2 – foot note “n”, suggest removing “neon and cold cathode” and “light emitting diodes” from this line

C405.4.2.2 Space-by-space method. Where a building has unfinished spaces, the lighting power allowance for the unfinished spaces shall be the total connected lighting power for those spaces, or 0.2 watts per square foot (~~40.76~~2.15 W/m²), whichever is less. For the Space-by-Space Method, the interior lighting power allowance is calculated as follows:

1. For each area enclosed by partitions that are not less than 80 percent of the ceiling height, determine the applicable space type from Table C405.4.2(2). For space types not listed, select the space type that most closely represents the proposed use of the space. Where a space has multiple functions, that space shall be broken up into smaller subspaces, each using their own space type.
2. Determine the total floor area of all of the spaces of each space type and multiply by the value for the space type in Table C405.4.2(2) to determine the lighting power (watts) for each space type.
3. The total interior lighting power allowance (watts) shall be the sum of the lighting power allowances for all space types.

Your amendment must meet one of the following criteria. Select at least one:

- | | |
|---|---|
| <input type="checkbox"/> Addresses a critical life/safety need. | <input type="checkbox"/> Consistency with state or federal regulations. |
| <input checked="" type="checkbox"/> The amendment clarifies the intent or application of the code. | <input type="checkbox"/> Addresses a unique character of the state. |
| <input type="checkbox"/> Addresses a specific state policy or statute.
(Note that energy conservation is a state policy) | <input type="checkbox"/> Corrects errors and omissions. |

Check the building types that would be impacted by your code change:

- | | | |
|--|--|---|
| <input type="checkbox"/> Single family/duplex/townhome | <input checked="" type="checkbox"/> Multi-family 4 + stories | <input checked="" type="checkbox"/> Institutional |
| <input checked="" type="checkbox"/> Multi-family 1 – 3 stories | <input checked="" type="checkbox"/> Commercial / Retail | <input checked="" type="checkbox"/> Industrial |

Your name	Michael Myer	Email address	Michael.myer@pnnl.gov
Your organization	Pacific NW Ntl Laboratory	Phone number	509-375-7292
Other contact name	Mike Rosenberg		

Economic Impact Data Sheet

Briefly summarize your proposal's primary economic impacts and benefits to building owners, tenants and businesses.

This is a clarification of SI units and other table clean up.

Provide your best estimate of the construction cost (or cost savings) of your code change proposal? (See OFM Life Cycle Cost [Analysis tool](#) and [Instructions](#); use these [Inputs](#). Webinars on the tool can be found [Here](#) and [Here](#))

\$0/square foot (For residential projects, also provide \$[Click here to enter text.](#)/ dwelling unit)

[Show calculations here, and list sources for costs/savings, or attach backup data pages](#)

No calculations necessary

Provide your best estimate of the annual energy savings (or additional energy use) for your code change proposal?

N/A kWh/ square foot (or) [Click here to enter text.](#)KBTU/ square foot

(For residential projects, also provide [Click here to enter text.](#)KWH/KBTU / dwelling unit)

[Show calculations here, and list sources for energy savings estimates, or attach backup data pages](#)

No energy savings calculations as this is a clarification.

List any code enforcement time for additional plan review or inspections that your proposal will require, in hours per permit application:

No change in enforcement, just a clarification.